

CLAIMS

5 1. A method for the transmission of the pages of an electronic document (100) by a client station (10, 12, 13) to a server station (11), connected by a communication network (1), with a view to the processing of the document by a processing peripheral (14, 20-22), the method including the prior steps of generating (S401) orders corresponding to the pages of the said 10 electronic document to be processed, storing (S401) the said orders grouped by page of the document, and sending (S403) a message requesting processing of the document to the server station, the method being characterised in that it comprises the following steps:

15 (A) receiving (S405) a request message, referred to as a "page request", sent by the server station, the said page request including information identifying a page of the document;

 (B) translating (S407) in a computer communication language orders corresponding to the page identified in the page request;

20 (C) sending (S409) to the server station a response message containing the translated orders corresponding to the identified page.

25 2. A method according to Claim 1, characterised in that steps (A), (B) and (C) are recommenced until all the pages of the document have been sent (S411).

30 3. A method according to Claim 1 or 2, characterised in that the said document processing request message includes an electronic address indicative of the storage location of the orders corresponding to the first page of the document to be processed.

35 4. A method according to Claim 3, characterised in that it includes, before the step of sending the said processing request message, a step of associating, with each of the pages of the document, an electronic

address indicative of the storage location of the orders corresponding to the page in question; and in that:

 said response message, containing the translated orders of a page, also includes the storage electronic address of the orders corresponding

5 to the following page to be processed of the document; and

 said information identifying a page of the document, contained in said page request received from the server station, is the storage electronic address of the orders corresponding to a page of the document.

10 5. A method according to Claim 3 or 4, characterised in that said processing request message includes information identifying a processing peripheral.

15 6. A method according to Claim 5, characterised in that said information identifying a peripheral is a network address identifying a peripheral on the network.

20 7. A method according to any one of the preceding claims, characterised in that the orders corresponding to each page of the document to be processed are stored in a computer file.

8. A method according to Claim 7, characterised in that the computer file for storing the orders is a file of the EMF type.

25 9. A method of processing an electronic document in a server station (11), connected via a communication network (1) to at least one client station (10, 12, 13), and responsible for the management of at least one electronic document processing peripheral (14, 20-22), the method being characterised in that it comprises the following steps:

30 (D) receiving (S601, S607) a message coming from a client station, said message including information identifying a page to be processed of an electronic document;

(E) sending a request message (S605), referred to as a page request, to the client station, said page request including said page identification information, and aimed at obtaining from the client station the processing orders corresponding to the page identified by the identification information;

5 (F) receiving (S607) a response message from the client station, said response message containing the orders corresponding to the identified page translated into a computer communication language.

10 10. A method according to Claim 9, characterised in that it includes a prior step of receiving (S601) a processing request message coming from the client station, said processing request message including information identifying a processing peripheral and information identifying a first page to be processed of the document; and in that said response message received (S607) from the client station also includes information identifying a following 15 page to be processed of the document.

11. A method according to Claim 10, characterised in that it also includes the following steps:

20 (G) converting (S611) the orders received, from the computer communication language to a data format appropriate to the processing of said orders by the processing peripheral identified by said peripheral identification information;

(H) processing (S613) said orders converted by the identified peripheral.

25 12. A method according to Claim 11, characterised in that steps (E) to (H) are recommenced until all the pages of the document have been processed.

30 13. A method according to Claim 12, characterised in that said information identifying a page to be processed of the electronic document is an

electronic address indicative of the storage location of the orders corresponding to the page in question.

14. A method according to any one of Claims 11 to 13,
5 characterised in that the step (H) of processing the said orders includes a step
of generating the processing codes, from said converted orders, by a
processing driver associated with said processing peripheral; and a step of
sending said codes to said processing peripheral.

10 15. A method according to Claim 14, characterised in that said
data format, appropriate to the processing of said orders by the identified
processing peripheral, is the EMF format.

15 16. A method according to any one of the preceding claims,
characterised in that said communication network is a network of the Internet
type.

20 17. A method according to any one of the preceding claims,
characterised in that the client station and server station communicate using a
communication protocol of the "hypertext transfer protocol" (HTTP) type.

25 18. A method according to Claim 17, characterised in that said
processing request message, said response message containing the translated
orders and said page request are HTTP messages including a supplementary
field (Xnext) containing the electronic address corresponding to a page to be
processed of the document.

30 19. A method according to any one of the preceding claims,
characterised in that said computer communication language is a language of
the "hypertext markup language" type.

20. A method according to Claim 19, characterised in that said communication language is the XML language.

21. A method according to any one of the preceding claims,
5 characterised in that the electronic address at which the orders corresponding to a page of the electronic document are stored is an address of the URL type.

22. A method according to any one of the preceding claims,
characterised in that the processing of a document consists of a printing of the
10 document.

23. A device (200) for transmitting pages of an electronic document by a client station (10, 12, 13) to a server station (11) connected by a communication network (1), with a view to processing the document (100) by
15 means of a processing peripheral (14, 20-22), the device having means (201) for generating the orders corresponding to the pages of said electronic document to be processed, means (205) for storing said orders grouped together by page of the document, and means (203) for sending a document processing request message to the server station, the device being
20 characterised in that it comprises:

- means (213) for receiving a request message, referred to as a "page request", sent by the server station, said page request including information identifying a page of the document;
- means (211) for translating into a computer communication
25 language the orders corresponding to the identified page in the page request;
- means (213) for sending to the server station a response message containing the translated orders corresponding to the identified page.

24. A device according to Claim 23, characterised in that it has
30 association means (207, 209) for associating with each of the pages of the document an electronic address indicative of the storage location of the orders corresponding to the page in question.

25. A device according to Claim 24, characterised in that the association means (207, 209) include:

- an association table (207) containing, for each page of said document, an electronic address indicative of the storage location of the orders corresponding to the page in question; and
- means (209) of updating the association table according to the document to be processed and the pages of said document already processed.

10 26. A device according to Claim 24 or 25, characterised in that it has means adapted for implementing a method of transmitting the pages of an electronic document, in accordance with any one of Claims 2 to 22.

15 27. A device (300) for processing an electronic document in a server station (11), connected via a communication network (1) to at least one client station (10, 12, 13), and responsible for the management of at least one electronic document processing peripheral (14, 20-22), the device being characterised in that it comprises:

- means (301) for receiving a message coming from a client station, said message including information identifying a page to be processed of an electronic document;
- means (301) for sending a request message, referred to as a "page request", to the client station, said page request including said page identification information, and aimed at obtaining from the client station the processing orders corresponding to the page identified by the identification information;
- means (301) for receiving a response message from the client station, said response message containing the orders corresponding to the identified page translated into a computer communication language.

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28. A processing device according to Claim 27, characterised in that it also has means (301) for first receiving a processing request message

coming from the client station, said processing request message including information identifying a processing peripheral and information identifying a first page to be processed of the document; and in that said response message received from the client station also includes information identifying a following page to be processed of the document.

29. A processing device according to Claim 28, characterised in that it also has:

- means (306) for converting the orders received, from the computer communication language into a data format appropriate to the processing of said orders by the computer peripheral identified by said peripheral identification information;
- processing means (311, 313) for the processing by the identified peripheral of said orders converted into said data format.

15 30. A processing device according to Claim 27, characterised in that said processing means (311, 313) include:

- means (313) for generating processing codes from said converted orders; and
- means (311) for sending said codes to said processing peripheral.

20 25 31. A processing device according to any one of Claims 28 to 30, characterised in that it has means adapted to implementing a processing method according to any one of Claims 10 to 22.

30 32. A computer system including a device for transmitting the pages of an electronic document according to any one of Claims 23 to 26, and/or a device for processing an electronic document according to any one of Claims 27 to 31.

33. A client station connected to a communication network, characterised in that it has a device for transmitting the pages of an electronic document, according to any one of Claims 23 to 26.

5 34. A server station connected to a communication network, characterised in that it has a device for processing an electronic document according to any one of Claims 27 to 31.

10 35. A communication network including at least one client station according to Claim 33, and at least one server station according to Claim 34.